

PETRO CUBE

Operations

Manual



PETRO

INDUSTRIAL



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SECTION 1: PETRO CUBE OPERATION

Overview:

The information within the following items serves as the recommended method of operation:

Item	Process / Procedure
1.1	Correct lifting of your PETRO CUBE
1.2	Locating and Installing your PETRO CUBE
1.3	PETRO CUBE Decal maintenance
1.4	Prior to filling your PETRO CUBE
1.5	Priming your PETRO supplied pump
1.6	Normal Operation and Refuelling
1.7	Scheduled Maintenance

A copy of the above elements is included below:

1.1 – Correct lifting of your PETRO CUBE

CORRECT LIFTING OF PETRO CUBES

1. Lift only when empty
2. Only use the lifting points as identified on the PETRO CUBE
3. PETRO CUBES are supplied standard with four way forklift pockets

Do not operate this equipment unless you are authorised and suitably trained.

1. Authorised persons are those that have been approved to use this equipment in the workplace and are suitably trained to do so.
2. All persons operating this equipment should do so in accordance with workplace health and safety and environmental guidelines governing their workplace.
3. Carry out preoperational inspections prior to using this equipment.
4. Use Personal Protective Equipment when operating this equipment.
5. Report all faults or potential hazards directly to the persons responsible in the workplace.
6. Upon finding any faults with the equipment do not operate the equipment, take the equipment out of service according to your workplace procedures and arrange for the equipment to be repaired by an authorised repairer.
7. PETRO Industrial offers training services where by PETRO Industrial provides suitably qualified persons to offer instruction on the safe use of the equipment provided.
8. PETRO Industrial offers service and repair to all refueling equipment.



1.2 – Locating and Installing your PETRO CUBE

LOCATING AND INSTALLING YOUR PETRO CUBE

PETRO CUBES are designed and constructed in accordance with the following Australian Standards for the storage and transportation of fuels and oils:

1. UN1202
2. AS1940
3. AS1692

For location and installation of your PETRO CUBE refer to the Australian Standards 1940 and 1692 Storage of Combustible and Flammable Liquids.

1. Seek approvals from governing bodies prior to installation
2. Install appropriate signage, impact protection and fire fighting equipment suitable for the product stored and dispensed from the PETRO CUBE
3. Install on a level hard compacted surface

PETRO Industrial offers services for installation and compliance with AS1940 and local governing authorities.



1.3 – PETRO CUBE Decal Maintenance

PETRO CUBE DECAL MAINTENANCE

PETRO CUBES are clearly labelled with the following Decals:

1. Product Label, Warning signage, Safe Fill level, Fill point, Dip point, Suction point, Return point and Vent
 2. Warning Only Lift When Empty
 3. Warning No Welding or Drilling
 4. Danger Confined Space
 5. No Smoking No Naked Flame
 6. Compliance plate and Serial Number are located under the lid
 7. Instruction and Operations Guide is located under the lid
- ✓ The PETRO labelling is compliant with AS1940 and AS1692
 - Please ensure these decals are kept clean and are in good repair
 - PETRO CUBES are supplied with a tank gauge for content level, calibrated dipsticks are not supplied as standard but are available from PETRO Industrial.



1.4 – Prior to filling your PETRO CUBE

PRIOR TO FILLING YOU PETRO CUBE

Before filling the PETRO CUBE inspect the following:

1. Visible damage to the inner and outer tanks
2. Labelling is correct for the product being stored in the PETRO CUBE
3. Correct operation of the vent
4. Dip the tank prior to filling operations
5. Pumping equipment if fitted is not in operation
6. Ask your petroleum supplier to provide their site requirements prior to arranging a delivery
7. No smoking, naked flames or hot works to be carried out in the refuelling area
8. Only fill the PETRO CUBE with a hand held splash fill nozzle
9. Do not leave unattended while filling
10. Do not pressure fill the PETRO CUBE
11. Do not overfill the PETRO CUBE
12. Replace all caps upon completion of filling operations
13. Monitor the bunded area while filling



1.5 – Priming your PETRO Supplied Pump

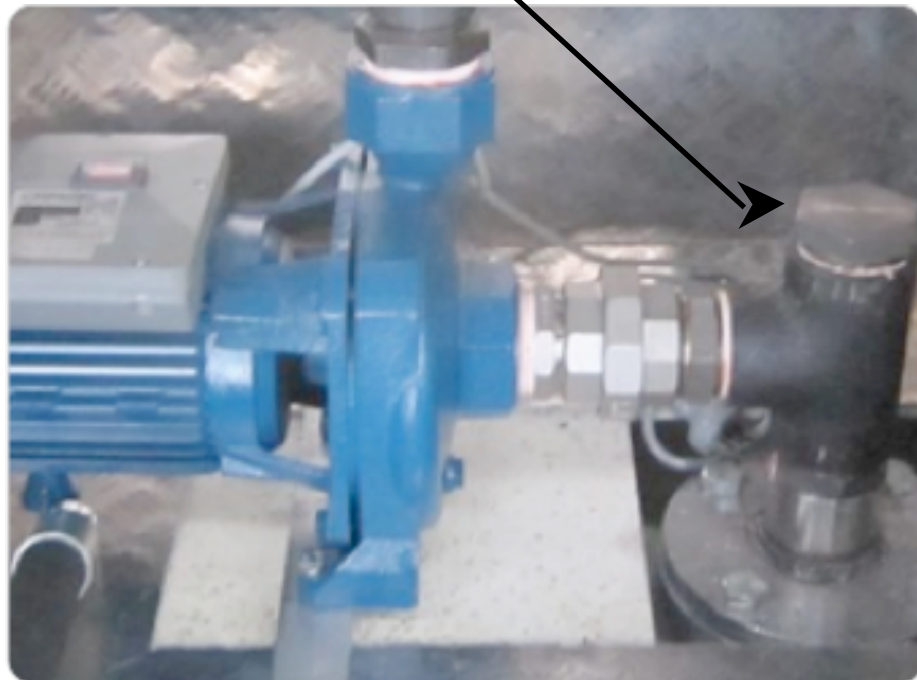
PRIMING PETRO SUPPLIED PUMP

Priming PETRO Supplied Pump

PETRO Industrial supplies and installs a wide variety of pumping equipment depending on the customer's requirements.

Please refer to the manufacturer's documents supplied for operation and service.

1. Priming pump equipment, note most pumps supplied are self-priming and no further action is required.
 - a. If required, remove the hose from the suction point on top of the tank and fill suction hose with product. Re-attach the hose and start the pump.
2. For centrifugal pump remove the priming plug on the pump and fill with product. Replace the priming plug and start the pump.
Priming point on PETRO Industrial CG150 Pump



1.6 – Normal Operation and Refuelling

NORMAL OPERATION AND REFUELLING

Normal Operation of the PETRO Cube

The PETRO Cubes are designed to be fitted with pumping equipment and configured in multiple ways. Common configurations are:

- Generator supply tank – no pumping equipment fitted
- Generator supply tank – pumping equipment fitted
- Light vehicle refuelling - hand operated pumping equipment
- Light vehicle refuelling powered equipment – 12Volt, 24Volt and 240Volt and Air Operated Pumping Equipment

PETRO Industrial recommends on site commissioning and training of the use and maintenance of the equipment fitted

PETRO CUBE generic refuelling operation

1. Refer to the manufactures documentation for pumping equipment use and operation.
2. Inspect the PETRO Cube and pumping equipment for damage and wear prior to operation and report any faults, do not operate if faults are found.
3. No Smoking or Naked Flames
4. Turn off vehicles prior to refuelling
5. Wear PPE
6. Dip PETRO Cube prior to refuelling operations to ensure sufficient product for the operation being carried out.
7. Remove the vehicle fuel cap, insert the refuelling nozzle.
8. Start the pump and operate the nozzle, do not leave the nozzle unattended while refuelling.
9. Upon completion of refuelling operations turn off pumping equipment, re- place hose and nozzle to avoid damage and trip hazards.
10. Replace vehicle filler cap.
11. Secure the PETRO Cube in accordance with site procedures

1.7 – Scheduled Maintenance

SCHEDULED MAINTENANCE

Scheduled Maintenance

PETRO Industrial recommends scheduled maintenance is carried out at set intervals 6 monthly by a suitably qualified tradesperson to any additional equipment fitted to the PETRO Cube such as pumps, filters, meter calibrations and so on.

Check with you PETRO Cube Dealer regarding programmed maintenance for you Cube.

On a weekly basis check the following:

1. Check the PETRO Cube for water contamination.
2. Check pumping equipment for wear and tear, refer to the manufactures documentation for pumping equipment use and operation
3. Inspect signage for damage to signage.
4. Monitor and clean bund.

PETRO Industrial can supply service, spare parts and accessories for your PETRO CUBE.

Contact Petro Industrial on 07 3204 9558 or contact sales@petroindustrial.com.au

SECTION 2: PETRO CUBE RISK ASSESSMENT

Overview:

A copy of the PETRO CUBE Risk Assessment is included below:

PETRO CUBE RISK ASSESSMENT

Version 1.0 July 2015



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PETRO CUBE Risk Assessment



Workplace / Equipment: PETRO CUBE

Risk Assessor: A. Braun

Assessment Date: 01/07/2015

Specific Task Related to Hazard: Storage of Diesel and Waste Oils

Section 1 Hazards: Potential HAZARDS

	Y	N		Y	N		Y	N
Work Environment			Radiation			Environmental		
Adequate access	✓		Ionizing radiation		✗	Spills	✓	
Air-conditioning		✗	Non-ionizing radiation		✗	Damage		✗
Confined spaces	✓		Kinetic Energy			Contamination	✓	
Lighting		✗	The body hitting objects		✗	Hazardous Substance		
Mental stress		✗	Hit by moving objects		✗	Liquids	✓	
Ergonomics		✗	Explosion		✗	Fumes		✗
Temperature / Weather Effects			Penetrating objects		✗	Gases		✗
Heat	✓		Vibration		✗	Vapours / mists		✗
Cold	✓		Acoustic / noise		✗	Solids		✗
Rain / flood		✗	Energy			Manual Handling		
Wind		✗	Electrical	✓		Lifting / carrying		✗
Pressure (diving / altitude)		✗	Gravity		✗	Pushing / pulling		✗
Lighting	✓		Falls / trips / slips	✓		Posture		✗
Smoke		✗	Falling objects		✗	Reaching / overstretching		✗
Health and Security			Mechanical			Repetitive movement		✗
Food		✗	Vehicles		✗	Bending		✗
Poisoning or contamination	✓		Mobile and fixed plant		✗	Miscellaneous		
Intoxication		✗	Powered equipment		✗	Working at heights	✓	
Dehydration		✗	Non-powered equipment		✗	Cuts / lacerations		✗
Violence		✗						
Working alone		✗						
Bites / stings		✗						

Section 2 Summary of Identified Hazards

1	Adequate access to Cube	6	Electricity
2	Confined Space	7	Spills
3	Heat	8	Liquids
4	Cold	9	Work at Heights
5	Poisoning / Contamination	10	

Any specific circumstances (describe): NONE

Persons at risk (list): OPERATOR

Section 3 Risk Assessment

(List identified hazards and detail measures taken to address the hazards) This form is to be expanded electronically or additional information attached where required

Controls to be considered from the following hierarchy of control

1. Elimination (is it necessary?)
2. Substitution
3. Isolation (restrict access)
4. Engineering (guarding, redesign)
5. Administration (training, SOP's,)
6. Personal Protective Equipment (PPE) eg (gloves, leather apron, coveralls, respirator) etc

Identified Hazards Exposure	Risk Rating	Required Controls	Controls Implemented	
			Y	N
Adequate access to Cube	Medium	Allow at least 600mm clear access to hatches		
Confined Space	High	Ensure monitored confined space entry procedures are in place		
Heat and Cold	Medium	Avoid exposure to +50 deg. C and Below 20 deg. C		
Poisoning/Contamination	Medium	Ensure controls advised in product Safety Data Sheet are followed		
Electricity	High	Prestart checks for wear and Earth Cube		
Spills - Liquid	Medium	Filling and Fuelling procedure in place – Spill Kit – Gloves and Glasses		
Work at Heights	High	Ensure Work at Heights procedure in place prior to Cube top access		

Section 4 Implementation Plan (Complete at commissioning)

Control Option	Resources	Person(s) Responsible	Proposed Implementation Date

Section 5 Comments and Endorsements

Comments: The PETRO CUBE is a self banded unit that requires regular checks for wear / damage of external surfaces and Bund. Regular maintenance schedule is to be implemented.

Assessment Approval:

I am satisfied that the risks are not significant and/or adequately controlled and that resources required will be provided.

Name: A. Braun

Position Title: WHS Coordinator

Signature: *Anton Braun*

Date: 01/07/2015

PETRO CUBE Risk Assessment Matrix



PRIORITISING HAZARDS AND RISKS

Consequence	Likelihood				
		Very Likely	Likely	Unlikely	Highly Unlikely
Life Threatening		High	High	High	Medium
Detrimental		High	High	Medium	Medium
Harmful		High	Medium	Medium	Low
Negligible		Medium	Medium	Low	Low

HAZARD CONSEQUENCE RATING TABLE

Life Threatening	Hazard may cause death or total loss of one or more bodily functions (eg. loss of: or use an arm, an eye, huge financial loss etc).
Detrimental	Hazard may cause severe injury, illness or permanent partial loss of one or more bodily functions (eg. noise induced hearing loss), or serious property damage, loss of production capability.
Harmful	Hazard may cause a reportable incident ie. an incident that results in the employee being unable to undertake their normal duties for 7 days or more, or significant property damage, high financial loss.
Negligible	Hazard may cause minor injury, illness or property damage, first aid treatment only or no injury, low financial loss.

PROBABILITY RATING TABLE

Very Likely	Exposure to hazard likely to occur frequently.
Likely	Exposure to hazard likely to occur but not frequently.
Unlikely	Exposure to hazard unlikely to occur.
Highly Unlikely	Exposure to hazard so unlikely that it can be assumed that it will not happen.

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